

**PENDING****(IN202411044540)**

## Composition and method of manufacturing stainless steel pickling sludge construction materials



### NEED

The construction industry faces challenges in managing waste from industrial processes. Stainless steel pickling sludge (SSPS) is a hazardous byproduct, and finding sustainable uses for it could reduce environmental impact.

### TECHNOLOGY OVERVIEW

This patent presents a method for transforming stainless steel pickling sludge (SSPS) into valuable construction materials like bricks and blocks. The process involves removing heavy metals, blending SSPS with cement, fly ash, sand, and water, followed by curing. The resulting material is environmentally friendly, durable, and offers an innovative recycling solution for industrial waste.

### TECHNOLOGY KEY FEATURES

Utilizes SSPS, cement, fly ash, and sand to create strong construction materials. It ensures the removal of harmful metals, utilizes hydraulic stabilization, and includes a 28-30 day curing period for enhanced strength.

[Read more here](#)

### MARKET ANALYSIS

The global green building materials market is projected to grow at a CAGR of 11.5%, reaching \$345.6B by 2033 (source: Allied Market Research). Market growth is driven by sustainability trends and increasing waste management regulations.

### Target Industries

1) Construction material manufacturers, 2) Environmental waste recycling firms, 3) Sustainable building material developers and research institutions.

### AT A GLANCE

- SDG 9 (Industry, Innovation, and Infrastructure), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action)

Technology is available for licensing/ co-development.

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